

WHAT IS CLAIMED IS:

1. An acoustic receiver, comprising:
means for converting an input audio signal into an acoustic signal;
5 a housing surrounding said converting means; and
a jacket surrounding at least a portion of said housing.
2. An acoustic receiver, comprising:
means for converting an input audio signal into an acoustic signal;
10 a housing having a plurality of sides that surround said converting means, one
of said sides including an output port for broadcasting said acoustic signal; and
a jacket having at least three sections for engaging at least three of said sides,
said three sections being generally flat and lying on respective ones of said sides.
- 15 3. The acoustic receiver of claim 2, wherein said jacket is made of stainless steel.
4. The acoustic receiver of claim 2, wherein said jacket is made of a soft magnetic
material.
- 20 5. The acoustic receiver of claim 2, wherein said jacket is made of a polymer.
6. The acoustic receiver of claim 2, wherein said jacket is primarily made of
Kapton.
- 25 7. The acoustic receiver of claim 2, wherein said jacket is made of epoxy.
8. The acoustic receiver of claim 2, wherein said jacket includes silicone.
9. The acoustic receiver of claim 2, wherein said jacket is adapted to dampen
30 vibration of said housing.
10. The acoustic receiver of claim 2, wherein said jacket is adapted to enhance the
structural integrity of said housing.

11. The acoustic receiver of claim 2, wherein said jacket is adapted to shield said converting means from the effects of electromagnetic interference.

5 12. The acoustic receiver of claim 2, wherein said converting means includes electromagnetic components and a diaphragm.

13. The acoustic receiver of claim 2, wherein said jacket is preconfigured to be press-fit onto said housing.

10 14. The acoustic receiver of claim 2, wherein said jacket is welded onto said housing.

15 15. The acoustic receiver of claim 2, wherein said jacket is adhered to said housing.

16. The acoustic receiver of claim 2, further including a layer of acoustical dampening material below said jacket.

17. The acoustic receiver of claim 2, wherein said receiver is cylindrical in shape.

20 18. The acoustic receiver of claim 2, wherein said receiver has a generally trapezium shape.

25 19. The acoustic receiver of claim 2, wherein said receiver has a generally trapezium-shaped cross section.

30 20. A transducer, comprising:
means for converting between an acoustic signal and an audio signal;
a housing surrounding said converting means; and
a jacket surrounding at least a portion of said housing.

21. The transducer of claim 20, wherein said transducer is a microphone.

22. The transducer of claim 20, wherein said transducer is a receiver.

23. The transducer of claim 20, wherein said jacket is adapted to dampen vibration of said housing.

5

24. The transducer of claim 20, further in combination with a second transducer having a second housing, said jacket surrounding at least a portion of said housing of said transducer and at least a portion of said second housing of said second transducer.

10

25. A microphone, comprising:

means for converting an acoustic signal into an audio signal;

a housing having a plurality of sides that surround said converting means, one of said sides including an input port for receiving said acoustic signal; and

a jacket having at least three sections for engaging at least three of said sides, said three sections being generally flat and lying on respective ones of said sides.

15

26. An acoustic receiver, comprising:

means for converting an input audio signal into an acoustic signal;

a housing having a plurality of sides that surround said converting means, one of said sides including an output port for broadcasting said acoustic signal;

20

a jacket having sections for engaging said sides, one of said sections and a corresponding side forming a gap therebetween; and

a printed circuit board located at least partially within said gap, said printed circuit board including electronics for processing said input audio signal.

25

27. The acoustic receiver of claim 26, wherein said jacket is made of a soft magnetic material.

28. The acoustic receiver of claim 26, wherein said printed circuit board is a flexible printed circuit board.

30

29. The acoustic receiver of claim 26, wherein said electronics includes an amplifier.

30. The acoustic receiver of claim 26, wherein said receiver is cylindrical in shape.

31. An acoustic receiver, comprising:

- 5 means for converting an input audio signal into an acoustic signal;
a housing having six sides that surround said converting means, one of said sides including an output port for broadcasting said acoustic signal; and
a jacket having a rectangular cross-section for closely interfitting with four of said six sides.

10 32. The acoustic receiver of claim 31, wherein said jacket is made of a soft magnetic material.

33. The acoustic receiver of claim 31, wherein said jacket is welded to said sides.

15 34. The acoustic receiver of claim 31, wherein said jacket is a polymer.

35. The acoustic receiver of claim 31, further including a dampening material between said jacket and said housing.

20 36. An acoustic receiver, comprising:

- means for converting an input audio signal into an acoustic signal;
a housing having sides that surround said converting means, one of said sides including an output port for broadcasting said acoustic signal; and
25 an epoxy jacket encapsulating said housing;

37. The acoustic receiver of claim 36, further including a printed circuit board located within said epoxy jacket, said printed circuit board including electronics for processing said input audio signal.

30 38. The acoustic receiver of claim 36, wherein said epoxy has a generally uniform thickness.

39. The acoustic receiver of claim 36, wherein said epoxy has a variable thickness.

40. The acoustic receiver of claim 36, wherein said acoustic receiver is cylindrical in shape.

5

41. The acoustic receiver of claim 36, wherein said acoustic receiver has a generally D-shaped cross section.

42. An acoustic receiver, comprising:

10

means for converting an input audio signal into an acoustic signal;

a housing having a plurality of sides that surround said converting means, one of said sides including an output port for broadcasting said acoustic signal;

a jacket spaced away from said housing; and

an acoustic dampening material positioned between said jacket and said housing.

15

43. The acoustic receiver of claim 42, wherein said dampening material is silicone.

44. The acoustic receiver of claim 42, wherein said dampening material is a resilient material.

20

45. The acoustic receiver of claim 42, wherein said acoustic receiver is cylindrical in shape.

46. The acoustic receiver of claim 42, wherein said acoustic receiver has a generally D-shaped cross section.

25

47. The acoustic receiver of claim 42, further including a printed circuit board located within said dampening material, said printed circuit board including electronics for processing said input audio signal.

30